ICARC 2026
Email: w3bmd@qsl.net
Website: www.qsl.net/w3bmd
Emergency Simplex: 147.570 MHz
REPEATERS:
W3BMD & W3BMD/2
ALL PL TONES: 131.8 Hz
RPTR 1-146.910- MHz, RPTR 2-146.655- MHz
444.975+ MHz DMR CC1 TS2
TG 313037(Local), also TG 3142, 31422
Facebook: Indiana County Amateur Radio Club

ICARC NEWSLETTER

May 31, 2026

Much thanks to the ARRL Foundation
for its support provided to the
ICARC tower and repeater
upgrades at its remote site

Officers for 2026:
President – Bill Robinson, KC3ZAF
Vice President - Joe Rougeux, KD3BCW
Treasurer - Chris Edwards, N3VFK
Secretary - Larry Freeman, N3LT

Board of Directors for 2026
1. Craig Bigler, AB3XA
2. Cass Fitzgerald, N3FLO
3. Ralph Timblin, N3UDI
4. Phil Kopczyk, K3PJ
5. Elmer Sorisio, KB3WG

LOCAL HAPPENINGS:

The final report for the ARRL Foundation Grant was submitted on May 13, 2026.
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The EMS utility trailer has been moved to another location on the remote site.

Reservations for Field Day sites within Blue Spruce park have been made. The current plans determined at the May Board meeting, are to operate 4A with no GOTA station. Setup will start, at the park around 1:00 PM local time on Friday, June 26, 2026. Additional setup will start on Saturday, June 27 around 11:00 AM local time. Other details (Volunteers, food..etc) should be worked out at the June 2, 2026 ICARC meeting.

Hamvention 2026:

"Dayton" Hamvention occurred this year on May 15, 16, and 17 at the Green County Fairgrounds near Xenia, OH and ICARC was well represented by KC3ZAF, AB3XA, W3CDH, KC3DTE & N3LT. As always it was, interesting and tiring. This year there was a little rain on Saturday but no major downpours and the temperatures were mild and mostly comfortable. Some Photos follow courtesy of N3LT:

Kate-WB2AIW, Bill's sister from the Radio Assoc. of Western NY (RAWNY) & Bill-KC3ZAF (ICARC)

Ian-KC3DTE, Dave-W3CDH, Larry-N3LT, Craig-AB3XA (ICARC)

Christina Lessard-KC1TDM, Larry-N3LT

Kristen McIntyre-K6WX, David Norris-K5UZ & Larry-N3LT

Christina is Development Operations Manager who is monitoring and directing the ARRL Foundation grant awarded to ICARC; Kristen is ARRL First Vice President and David is Director of ARRL Delta Division

These photos were taken on May 15 &16, and as can be seen, the weather was great and it was busy!
It did rain lightly but it had little affect on the experience of being there. Much better weather than past recent years.

N3LT attended a couple of sessions of the HamSCI forum on May 15th at the Hamvention and found it to be very interesting. For more information about HamSCI see the article **"Associate Professor Nathaniel Frissell shares insights on using ham radio to study space weather"** appearing in the **Civic Science Observer at the following link: https://civicsciencemedia.org/associate-professor-nathaniel-frissell-shares-insights-on-using-ham-radio-to-study-space-weather/**

Excerpt from the Civic Science Observer:

Associate Professor Nathaniel Frissell shares insights on using ham radio to study space weather

Published on March 31, 2025
by Joanna Marsh
https://civicsciencemedia.org/author/joanna-marsh/

"Nathaniel Frissell, an associate professor of physics and engineering at the University of Scranton in Pennsylvania, has been a ham radio enthusiast ever since middle school. About 10 years ago, Frissell discovered a way to combine his passion for ham radio with his professional background and expertise in space physics.Frissell is the founder of Science Citizen Investigation, or HamSCI, which he still co-leads today. The group seeks to connect professional scientists with amateur radio operators so that they can work on various research projects together.

The initial seeds of HamSci were planted around 2015 when Frissell was a graduate student at Virginia Tech. He had already been a ham radio operator for years, but he realized that ham radio data could be analyzed to see how space weather affected radio propagation.

Two presentations of the HamSci Forum were attended by the newsletter editor, the first was about the Grape WWV, CHU receiver:

Title: A Grape1 HamSCI Receiver Build Project for Education and Science by Bob Reif, W1XP

The device is a specialized radio receiver designed to monitor changes in the Earth's ionosphere by measuring Doppler frequency shifts from frequency standard stations like WWV and CHU. It aims to collect data for studying solar phenomena and their effects on the ionosphere. Previous versions were developed predominantly using surface mount technology. Now Bob is developing a "through-hole" kit that uses minimal surface mount components to enable ordinary hams to solder it all together without specialized equipment. Any difficult surface mount items are pre-mounted. For more information do a search on "Grape WWV" receiver and much will pop up. It's an interesting project, the prototype looks like the photo to the right. --->

The Second presentation was about the Meteor Scatter QSO Party 2025 Results and Plans for 2026 by Gary Mikitin, AF8A and this was also a very interesting presentation. In particular one result was an eyeopener as far as far as "Typical time of duration of useful meteor scatter propagation" was concerned. See the image clip from the presentation that appears here.---> Note that the relative duration is reported to be the longest on the 10 m Band. In other words a 2 second communication on 2m could last approximately 60 seconds on 10m and 20 seconds on 6m. To learn more about meteor scatter (MS) check out the following links:

Frequency MHz	Rel strength	Rel Str dB	Rel duration
144.15	0.04	-13.7	0.12
50.26	1.00	0.0	1.00
28.145	5.69	7.6	3.19

https://hamsci.org/publications/hamsci%E2%80%99s-meteor-scatter-qso-party-2025
https://k5nd.net/2023/04/meteor-scatter-propagation-how-it-works-getting-on-the-air/

A vacation side project:

While traveling South to visit family and friends N3LT set up the following station to attempt contacts with friends back in Pa and Oh.

I am using a commercial X-antenna which is an end fed with wire gauge of 26 and silicone insulation. The wire is very small and lite; the antenna is designed primarily for QRP use. It seemed to match best with the 49:1 transformer switched in and fed with 25 ft of RG 58 from my ic7300. I had a cw contact on Wed , May 27 with a friend, N8HP in Ohio using 45 W and again on Thursday using PSK31 at about 25 W of power on the low end of the 40 m band where the swr was about 1.5:1. On Friday I made contact with K3ZYK near Nolo, PA using about 45 watts on LSB around 7250 KHz with an swr of over 3:1. Unfortunately, my internal auto tuner would only bring the swr down to a bit over 3:1 when the frequency was above the cw and digital portions of the band on 40 m. In fact the 49:1 transformer got rather warm but the antenna wire held up well. I finally remembered that I had brought an old manual MFJ tuner so I got that out Saturday night and was able to tune all across the 40 m band to an swr of 1.2:1. So K3ZYK and I tried again and I used 70 W and we had a great LSB QSO. The transformer barely got luke warm at 70 W. A good match helps all around. The length of the antenna wire is about 66 ft. I am going to modify it with 20 gauge silicone insulated and increase the length to about 100 ft to improve the tuning on 40 m. That won't make it significantly more bulky or heavier so it will still be good for backpacking. The 66 ft of wire is about a quarter wave on 80 m so it was able to tune most of the 80 m band, but the efficiency was way down and I could not make a contact thereon. I couldn't hear very much either. The X-antenna worked great on 40 m. Only tried 80 m and 40 m and had no hard RF ground. With a tuned system the transformer is very adequate for using relatively high power. I hesitated at going to 100 W because the wire was so small, and I did not want to smoke it.

Announcements:
The ICARC meetings are, generally, scheduled for the FIRST Tuesday of each month. The next ICARC meeting is on Tue, June 2, 2026, 6:30 pm at the Indiana, PA Eat 'n Park Restaurant.

The ICARC Public Service and Information Net happens on each Monday night starting at 8:30 PM using the W3BMD repeater on 146.910/146.310 MHz. (ICARC is an ARRL affliated club). There will often be a second net starting immediately following the primary net with the W3BMD/2 repeater, on 146.655/.055 MHz located at ICARC's Remote site. (Tones for both are 131.8 Hz)

Current Net Control Operators: Phil Kopczyk, Chris Edwards, Stuart Younkin, and Ralph Timblin. We thank you fellows very much. We can always use more.

Attention Technician and General licensees (and prospective hams), have you thought about upgrading? Do you have trouble making it to an in-person ham exam? Now you don't have that excuse. Groups holding online ham exams have greatly expanded. Some groups are having exams daily. Reportedly it is an easy process if you have a laptop, desktop or tablet with a camera and microphone. Shown below are websites where you can look into testing online.

https://wm7x.net/ One of the most popular. They have videos explaining how it's done.
https://kl7aa.org/vex/remote-testing/
https://hamstrung/sessions/remote Lists remote and in person test sessions.

On the National Scene:

Excerpt From the ARRL education@arrl.org

New Technician Class Question Pool begins July 1st

Teaching Technician Class element 2, whether in a classroom or over the internet, is a challenge. While the questions and answers are basic compared to the General- and Extra-Class question pools, our biggest job is being entertainers, keeping our students excited about getting on the air and enjoying our hobby and service. This means performing lots of live demos, making fun ham contacts over the air in class, and encouraging at-home study before each class session with our pre-test study questions. It is important to have "stage presence", using a friendly voice, slightly louder than just talking, to command the class's attention.
Your first few sessions for Technician element 2 need to build your students' confidence that ham radio will be fun, exciting, and rewarding. Then, once we have 'em hooked, we work the 400+ questions! If we start our first class session with "E = I × R" without selling our students on ham radio, we might overwhelm them, and attendance could shrink.

This past year, our Question Pool Committee worked hard to modify over 150 questions and answers for the Technician Class exam pool, making them more readable for those non-technical folks entering our amateur radio service and hobby.

The test is not being dumbed down, but rather being made more concise and clear. For example, in the phrase, "identify in the diagram a SPST switch" SPST will be spelled out as "Single Pole, Single Throw switch". The Question Pool Committee also used ExamTools data to study which Technician test questions were missed the most and revised a few answer choices to make them easier to comprehend.

Lucky for us, they kept the same correct answer for each question. So, for those of us who use PowerPoint slides in the classroom, our slides will still be usable after the July 1st test-rotation date.
In fact, about *half* of the test pool for the 2026 – 2030 Technician-Class element 2 remains totally unchanged — this is more good news for many of us who bring in fellow instructors to help lead some of the demonstrations at specific page numbers.

More good news for instructors — 25 new questions take the place of some of the older, more complicated technology questions.

On top of that, for those who use the ARRL Gordon West books, ARRL Acquisitions Editor Mark Derks,

KC1RVQ, along with Book Editor Makenzie Ozycz and Assistant Production Supervisor Terese Newman, KC1YPP, were able to maintain the same page numbers in the new book. We know many of you have your own handouts, with page numbers guiding students to see the explanations our books offer — those page references remain the same!

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Summary ICARC Meeting Minutes of 04/07/2026 .

President (KC3ZAF) called the meeting to order at 19:07 hours.

1. Pledge of Allegiance: DONE

2. Roll Call: 15 Attendees- KC3ZAF, KD3BCW, N3VFK, N3KMA, AB3XA, N3LT, K3PJ, WB3DUD, N3ARA, K3VAR, N3QM, W3CDH, N3UDI, KA2YOS, KB3WG

3. Treasurer's Report: Reservations for WFD Jan 2027 is paid ($200),Electric paid ($95.19) Total remaining balance in General and Maintenance funds is $2378.53. Additional dues payments and hat fund will be included in next months report.

4. Trustee's Report: Brief report given by Elmer, all is well with repeaters

5. Secretary's Report & Grant Committee update: The March meeting minutes were read and approved. Deryl Mack has set up internet at the site and that if we wanted to do echo link we could do it. A brief progress report on the grant status was provided. Other equipment has been ordered with grant funds. The Grant Final Report is being prepared and once a draft, which is close to the final form, is ready it will be passed around to the grant committee. The final report is due by June 28, 2026.

6. Old business: Larry Reported that the March 14 work day went well. The site is cleaned up a bit more and rocks have been removed so that mowing can occur. The guy wires have been. Elmer and I went another day and got the coax trimmed to length so it is no longer laying around the site. We still have to clean up the steel around the site. Greco's requires that the the steel guy wire be cut into sections no longer than 4 feet.

7. New Business: Larry reports that he and Cass want to schedule another event at the Rhine Rd site on April 18, 2026 with the hope of getting more cleanup and getting the power amps and receive preamps up and running. Right now we are only getting about 12 watts to the antenna due to losses in the duplexers,cables, and junctions. The goal is to get up to about 35 watts to the antenna. Mike asked about the gain of the VHF antenna. Elmer indicated that is is specified at about 6dB with about 9dB for the UHF antenna. Mike said the effective power out should be considered in the actual power output from the antenna. There was additional discussion about the steel cable cleanup, antenna gain , repeater range, and other potential scrap dealers.

   The question of needing the two accounts at the bank was brought up. A discussion ensued indicating that it was not necessary to have two accounts. It was also brought up that we have the grant account at a different bank and that remaining donated money therein may, at some point be transferred to the regular banking account. It was decided to not make major changes at this time.

   Someone brought up the mail box rental and Larry indicated that he had just paid for six month rental which included an extra fee because the mailbox rental payment defaulted and the lock was removed and replacing it was treated as a new lock. This started a minor discussion of having a hard physical address for the club, which is needed for renewing the tax exempt documents and small games of chance documents. The last known hard address was on Rex Av. where Sheldon Davis lived.

   The topic of getting the electric changed back to residential was brought up to save money, but it was pointed out that we tried that through the company and through the state reps office and got no help with that from either. Chris, pointed out that it costs us $50.00 every month whether we use power or not. We cannot disconnect until we can go full solar. now have 4 batteries and 4 solar panels in our possession.

The donated money was brought up but it was pointed out that the money is part of the grant banking accounts. Noting will be done with any extra grant account money until the ARRL Foundation has signed off on the final report. They have the option of taking away money if they deem the spending not within the scope of the grant. Nothing will be changed in the grant account until the grant is deemed completed by the ARRL Foundation.

It was suggested that the post office will set up a street address if we want. Someone suggested $325^{1/2}$ Rhine Rd. No definitive conclusion.

There was also discussion of the VE sessions.
There was discussion about getting ready for field day.
It was brought up that the Macks need to be paid.

8. Adjournment: Meeting adjourned at 19:54 hours

It should be noted that prior to the meeting starting at 18:30 KC3ZAF and N3UDI gave a nice presentation on the use of Net Logger software. It was very interesting.